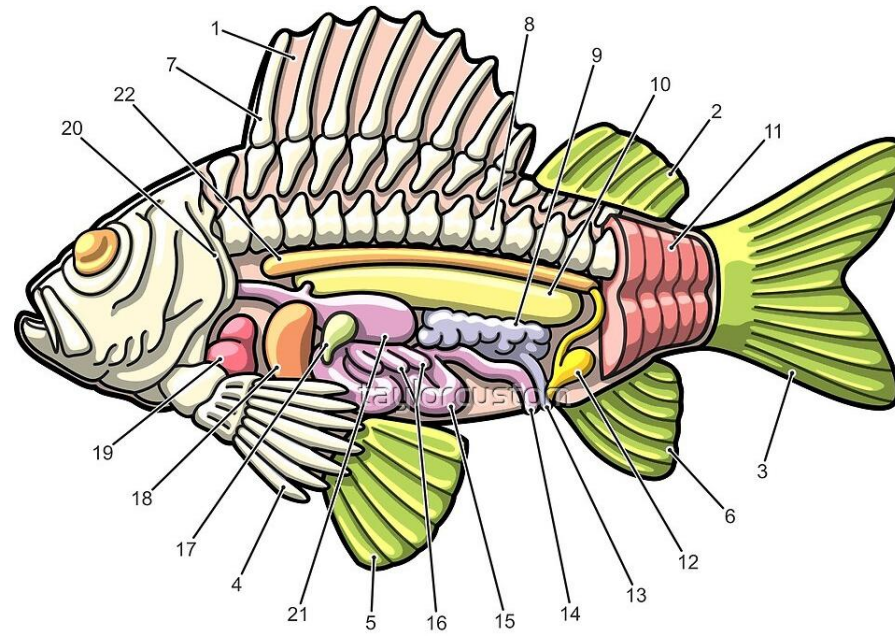


# Anatomy: An Introduction

**Course: Anatomy & Biology of Finfish**  
**FRM-122 (2+1)**



# Anatomy: An Introduction

**Anatomy** (Greek anatomē, "dissection") is the branch of biology concerned with the study of the structure of organisms and their parts.

or

Anatomy is a branch of natural science which deals with the structural organization of living things.

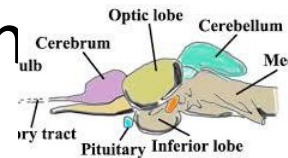
# Anatomy

- The discipline of anatomy is divided into macroscopic and microscopic anatomy.
- **Macroscopic anatomy**, or gross anatomy, is the examination of an animal's body parts using unaided eyesight. Gross anatomy also includes the branch of superficial anatomy.
- **Microscopic anatomy** involves the use of optical instruments in the study of the tissues of various structures, known as histology, and also in the study of cells.

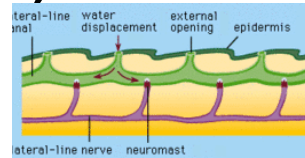
# Anatomy

- **Anatomy is the study of structural organization of living organisms.**
- It includes the study of an organism's individual cells, tissues, organs and systems structure and position.

1. **Nervous system**—The nervous system regulates functions of the body and senses stimuli from various sources. It is important in locomotion



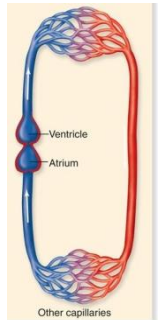
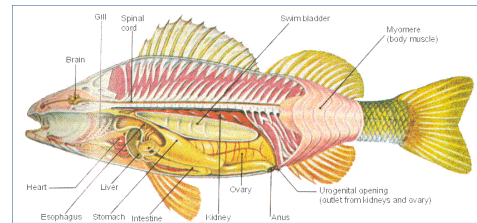
2. **Sensory system**—The sensory system is comprised of organs that receive stimuli from the environment of an organism. With finfish, these include the eyes, ears, skin



# Anatomy cont'd.....

## 3. Circulatory system

Responsible for circulating blood throughout the body. The circulatory system transports digested nutrients from food, oxygen from the gills, and other substances throughout the body and transports certain wastes to be excreted



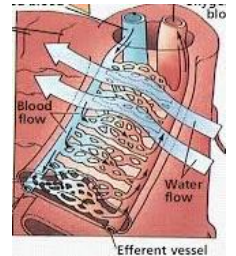
## 4. Skeletal system

The skeletal system is the bony structure that gives the body shape and form. Some structures protect the internal organs and allow locomotion to occur

# Anatomy cont'd.....

## 5. Muscular system

The muscular system is comprised of the strong tissues of the body that promote movement and locomotion. With finfish, the major muscles involved with locomotion are on each side of the tail.



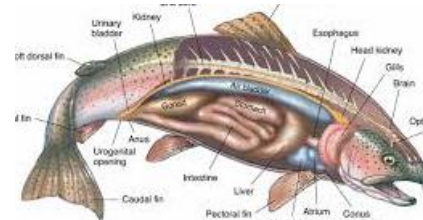
## 6. Respiratory system

The respiratory system of finfish consists of the organs that intake oxygen from the water and release certain wastes. With finfish, the gills and associated structures intake oxygen from water and release various wastes from the circulating blood.

# Anatomy cont'd.....

## 7. Digestive system

The digestive system digests the food materials that are ingested by the organism. It also prepares wastes from digestion for elimination from the body of the organism



## 8. Reproductive system

The reproductive system assures that the species perpetuates itself. These systems vary by gender, with the males of a species producing sperm and the females producing eggs

# Anatomy cont'd.....

## 9. Excretory System

It control the osmolarity and the volume of blood and tissue fluid by excreting solutes that are present in excess. Give out nitrogenous wastes, Keep homeostatsis and Balance blood pH

## 10. Endocrine System

The endocrine system, made up of endocrine glands, secretes hormones that coordinate slower but longer-acting responses to stimuli.